

CLAIMS

1. A valve assembly comprising:
a valve body defining an inlet, a controlled outlet and a passageway therebetween;
a valve stop and a valve seat supported within said valve body in axial alignment with said controlled outlet; and
a plunger reciprocable between the valve stop and the valve seat to open and close said controlled outlet, said plunger further including a central bore having an insert molded therein to define a stop-cushion at an end proximal the valve stop and a valve tip at an end proximal the valve seat.
2. The valve assembly of claim 1, wherein the stop cushion is dome-shaped.
3. The evaporative control valve assembly of claim 1, wherein the valve stop includes a plunger-impact surface formed of a non-conductive material.
4. The evaporative control valve assembly of claim 1, wherein the valve stop includes a non-conductive insert received in an end proximal the plunger.
5. The evaporative control valve assembly of claim 1, wherein said plunger includes a pocket formed in an end proximal the valve stop and a spring received with the pocket that urges the plunger toward the valve seat to close the passageway.
6. The evaporative control valve assembly of claim 4, wherein the spring has an outer diameter at least 50% greater than the diameter of

the pocket.

7. The evaporative control valve assembly of claim 1, wherein a solenoid actuator is operable on said plunger to open and close said passageway.

8. A method of manufacturing a plunger reciprocably moveable within a valve assembly between a valve stop and a valve seat, the method comprising:

providing a conductive elongate plunger body having a central bore formed therein ;

molding an insert within the plunger body to define a stop-cushion at an end proximal the valve stop and a valve tip proximal an end proximal the valve seat.

9. A plunger manufactured according to the method of claim 8, comprising:

a conductive elongate plunger body having a central bore formed therein; and

an insert molded within the plunger body to define a stop-cushion at an end proximal the valve stop and a valve tip proximal an end proximal the valve seat.